

REMARKS/ARGUMENTS

The Office Action mailed April 15, 2003 has been carefully reviewed. The claims presented for examination are claims 1-8. Applicants respectfully request reconsideration of this application as amended and in view of the enclosed Declarations and the following remarks.

35 USC 112 Rejection

Claims 1-8 were rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the Examiner stated, "the claim recites a laser constructed to control amplified spontaneous emission and/or parasitic light. It is not clear whether a laser or a laser device constructed to control amplified which render the claim confusing, vague and indefinite." Applicants have amended claim 1 to state, "A laser that controls amplified spontaneous emission and/or parasitic light" and believe this overcomes this portion of the rejection.

Regarding claim 1, the Examiner stated, "The claim also recites a laser gain medium having certain polished surface that are used to transport pump light by internal reflection throughout said laser gain medium. Since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex pane Masham, 2 USPQ2d 1647 (1987). Further the claim recites a layered coating on at least certain of said polished surface that are used to transport pump light by internal reflection of said laser gain medium. On at least certain is not proper English language." Applicants have amended claim 1 to state, "a laser gain medium having polished surfaces" and "a layered coating on at least some of said polished surfaces" and believe this overcomes this portion of the rejection.

Regarding claim 1, the Examiner stated, "Furthermore the claim recites said layered having a reflective inner material and an absorptive or scattering outside material and configured to substantially reflect the pump light that strikes the coating so as to direct the pump light back into said laser gain medium. The material is either reflective or non reflective. It is not clear what is substantially reflect meant. In addition, the claim recites substantially transmit amplifier spontaneous emission and/or parasitic light that strikes the coating so as to let this light strike said outside material of said layered coating where it is either scattered or absorbed. It is not clear as what "it is" is meant in the claim which render the claim confusing, vague and indefinite."

Applicants respectfully submit that terms in claim 1 "configured to substantially reflect the pump light" and "substantially transmit said amplified spontaneous emission and/or parasitic light" are not confusing, vague or indefinite. Applicants point out that the prior art U.S. Patent No. 6,039,632 cited in the state of technology portion of this application uses the term "a substantially non-reflecting scattering finish" and the term "substantially" has established meaning in the art. Applicants believe this overcomes this portion of the rejection.

Regarding claims 6 and 7 the Examiner stated, "the claims recite a laser gain elements having smooth surface other than those through which the laser light is intended to enter or exit the gain element. It is not clear as what "those through which" is meant in the claims, which render the claims confusing, vague and indefinite."

Applicants have amended claim 6 to state, "said laser gain element having enter or exit surfaces through which the laser light is intended to enter or exit the gain element and smooth surfaces other than those enter or exit surfaces ..." and claim 7 to state, "providing a laser gain element with enter or exit surfaces through which the laser light is intended to enter or exit the gain element and smooth surfaces other than those enter or exit surfaces ..." Applicants believe this overcomes this portion of the rejection.

Regarding claim 6 the Examiner stated, "Claim 6 also recites an optical coating applied to said smooth surface wherein said smooth surfaces serve to substantially reflect pump light that is introduced into the sample and so keep the pump light confined within laser gain medium. It is no antecedent base for the sample." Applicants have deleted the term "the sample" and added the term "said laser gain element." Applicants believe this provides a proper antecedent basis and overcomes this portion of the rejection.

The Examiner stated, "The claims further recite said applied optical coating designed to preferentially transit amplified spontaneous emission and parasitic light out of said laser gain element and into said optical coating, and the outer surface of said optical designed to substantially scatter or absorb the radiation that reaches said surface so as to prevent it from reentering the laser gain medium. It is a design choice, which render the claims confusing, vague and indefinite." Applicants have amended claim 6 to state, "said applied optical coating having an outer surface and said outer surface of said optical coating designed to substantially scatter or absorb amplified spontaneous emission and parasitic light that reaches said outer surface so as to prevent it from re-entering said laser gain element" and claim 7 to state, "the outer surface of the applied optical coating is designed to substantially scatter or absorb the amplified spontaneous emission and parasitic light that reaches that surface so as to prevent it from re-entering the laser gain medium." Applicants respectfully submit this is not a design choice and believe this overcomes this portion of the rejection.

Regarding claim 7 the Examiner stated, "Further claim 7 recites said smooth surface which are in contact with the applied optical coating serve to substantially reflect pump light that is introduced into the gain element and so keep pump light confined within the gain element and wherein said applied optical coating is designed to preferentially transmit amplified spontaneous emission and parasitic light out of the gain element and into the coating and the outer surface of the applied optical coating is

designed to substantially scatter or absorb the radiation that reaches that surface so as to prevent it from re-entering the laser gain medium. It is the functional language of using or operating the gain medium instead of producing or manufacturing of the laser gain element, which render the claims confusing, vague and indefinite. Applicants have amended claim 7 to state, "coating said smooth surfaces with an optical coating so that said smooth surfaces which are in contact with said applied optical coating serve to substantially reflect pump light that is introduced into the gain element and so keep pump light confined within the gain element and wherein said applied optical coating is designed to preferentially transmit amplified spontaneous emission and parasitic light out of the gain element and into said applied coating and the outer surface of said applied optical coating substantially scatters or absorbs said amplified spontaneous emission and parasitic light that reaches said outer surface of said applied optical coating so as to prevent said amplified spontaneous emission and parasitic light from re-entering the laser gain medium." Applicants respectfully submit that this describes a method of producing a laser gain element for amplifying laser light and believe this overcomes this portion of the rejection.

35 U.S.C. 102(e) Rejection

Claims 1 and 5-7 were rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Injeyan et al (U.S. Patent No. 6,094,297). Enclosed are declarations by Eric C. Honea, Raymond J. Beach, and Eddie E. Scott that establish that Applicants made the invention described and claimed in the subject patent application in this country prior to July 7, 1998 which is the filing date of the application from which The Cited Injeyan Reference, U.S. Patent No. 6,094,297, matured. Applicants submit that The Cited Injeyan Reference, U.S. Patent No. 6,094,297, can not be used as a reference against the claims of the subject application.

35 U.S.C. 103(a) Rejection

Claims 2-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Injeyan ('297) in view of Feng et al ('468) further in view of Connors et al ('555). Enclosed are declarations by Eric C. Honea, Raymond J. Beach, and Eddie E. Scott that establish that Applicants made the invention described and claimed in the subject patent application in this country prior to July 7, 1998 which is the filing date of the application from which The Cited Injeyan Reference, U.S. Patent No. 6,094,297, matured. Applicants submit that The Cited Injeyan Reference, U.S. Patent No. 6,094,297, can not be used as a reference against the claims of the subject application. Since the Injeyan Reference, U.S. Patent No. 6,094,297, can not be used as a reference against the claims of the subject application the Feng et al ('468) and Connors et al ('555) references do not render the claimed invention unpatentable.

SUMMARY

The undersigned respectfully submits that, in view of the enclosed "declarations" and the foregoing remarks, the rejections of the claims raised in the Office Action dated April 15, 2003 have been fully addressed and overcome, and the present application is believed to be in condition for allowance. It is respectfully requested that this application be reconsidered, that the claims be allowed, and that this case be passed to issue. If it is believed that a telephone conversation would expedite the prosecution of the present application, or clarify matters with regard to its allowance, the Examiner is invited to call the undersigned attorney at (925) 424-6897.

Respectfully submitted,



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Livermore, California
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